REMARKS

Reconsideration of this application, as amended, is requested. Claims 9-14 remain in the application. Claims 1-8 have been cancelled.

The remaining claims have been amended to eliminate the numeric references. Numeric references are not required under U.S. patent law and are given no patentable weight. Accordingly, the elimination of numeric references is not an amendment entered for purposes of patentability and is not a narrowing amendment. Claim 9 also has been amended substantially to define the invention more clearly.

Claim 7 was rejected under 35 USC 112, second paragraph.

Claim 7 has been cancelled.

Claims 1-3, 5-10, and 12-14 were rejected under 35 USC 102(b) as being anticipated by Hoppe, U.S. Patent No. 3,867,005.

Hoppe shows an insulation displacement terminal fitting with a plurality of V-shaped insulation displacement portions. Most of the V-shaped insulation displacement portions shown in Hoppe extend unitarily from the respective side wall at two spaced apart locations. However, FIG. 8 of Hoppe also shows a pair of V-shaped or J-shaped cutting blades 99 and 100 each of which is connected to the side wall at only one location. Cutting blades 99 and 100 would appear to function exactly as the cutting blades shown in other embodiments of Hoppe in that insulation is cut and the core is contacted by the apex of the V or J. V-shaped or J-shaped cutting blades, as in Hoppe, effectively cut a wedge-shaped section from the insulation coating. These V-shaped or J-shaped insulation displacement portions provide a relatively large contact area with the core. However, V-shaped or J-shaped cutting blades do not provide

effective pull-out resistance. In particular, a longitudinal pulling force on the wire can readily cause the apex of the V or J to slide out of the wedge-shaped section of the insulation that has been cut. The blades 99 and 100 shown in FIG. 8 of Hoppe would appear to be even less likely to resist pull out forces than the V-shaped blades elsewhere in Hoppe. In particular, the free ends of the J-shaped blades 99 and 100 bend back transversely to a location between the insulation coating of the wire and the side walls of the terminal fitting. These bent ends of the blades 99 and 100 are likely to flex in the direction of the pull out force, thereby further facilitating movement of the wire. It is believed that the J-shaped blades 99 and 100 of Hoppe would be less resistant to pull out forces than the V-shaped blades of Hoppe where both ends of the V-shaped structure connect unitarily to the side walls.

In contrast to Hoppe, amended claim 9 defines a terminal fitting with first and second opposed V-shaped insulation displacement portions and first and second substantially planar locks. The planar locks define substantially equal angles to the respective side walls. Additionally the first and second locks are formed respectively with first and second edges defining portions of the first and second locks furthest from the respective first and second side walls. This unique combination of V-shaped insulation displacement portions and planar locks would perform much better than the J-shaped structures taught by Hoppe. In particular, the planar locks with edges that define portions of the locks furthest from the respective side walls would not cut wedges from the resin coating. Rather, narrow slices are cut into the insulation displacement portion and provide very effective resistance to pull out forces on the wire. Thus, the claimed invention provides the novel and unobvious combination of the V-shaped

insulation displacement portions for achieving a high contact area with the core of the wire and planar locks with the structure defined specifically in claim 9 for resisting pull out forces on the wire. This unique structure is not taught or suggested by Hoppe.

Claim 4 and 11 where rejected under 35 USC 103(a) as being obvious over Hoppe in view of Endo et al. The Examiner asserted that the Endo et al. reference shows locks inclined obliquely to project in a direction opposite from an acting direction of an external force along the longitudinal direction of the wire. Accordingly, the Examiner concluded that it would be obvious to combine Hoppe and Endo et al., and that the hypothetical combination would make original claims 4 and 11 obvious.

Claim 4 has been cancelled. Claim 11 remains in the application, and continues to depend from claim 9, but with the significant amendments to claim 9 discussed in detail above.

The combination of Hoppe and Endo et al. does not suggest the claimed combination of the terminal fitting with both V-shaped insulation displacement portions and planar locks. The Endo et al. structure is directed to various complex structures for avoiding contact between the core and a cut unplated edge of the metal. Endo provides various structures for having surface of the plated metal contact the core of the wire. Endo could not achieve its stated objective if the cut and bent portions shown in FIGS. 5 and 6 of Endo et al. were planar, as claimed. A planar section would necessary achieve the edge contact that Endo et al. tries to avoid. Thus, the hypothetical combination of Hoppe and Endo et al. does not suggest the claim structure where the first and second locks are formed respectfully with first and second edges defining portions of the first and second locks furthest from the respective first and second sidewalls. In fact,

Endo et al. goes to great lengths to ensure that the claimed structure is not achieved. Further, as noted above, the references do not suggest the claimed combination of the V-shaped insulation displacement portions for achieving a high quality contact with the core and planar locks.

In view of the preceding amendments and remarks, it is submitted that the claims remaining in the application are directed to patentable subject matter, and allowance is solicited. The Examiner is urged to contact applicant's attorney at the number below to expedite the prosecution of this application.

Respectfully submitted,

Gerald E. Hespos, Esq.
Atty. Reg. No. 30,066
Customer No. 001218
CASELLA & HESPOS LLP
274 Madison Avenue - Suite 1703
New York, NY 10016
Tel. (212) 725-2450
Fax (212) 725-2452

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"Version with markings to show changes made."

--9. (amended) An insulation-displacement terminal fitting [(T)], comprising: a base wall [(11)], first and second opposed side walls [(12)] projecting from opposite sides of the base wall [(11)] and defining a wire-receiving space between the side walls [(12), each said side wall 12 being provided with at least one], first and second opposed V-shaped insulation-displacement portions [(15)] projecting respectively from the first and second side walls into the wire-receiving space, [each said side wall further having at least one] first and second substantially planar locks [(17; 18)] projecting respectively from the first and second side walls into the wire-receiving space in [a] positions spaced from the insulation-displacement portions [(15)], said planar locks being aligned at substantially equal angles to the respective side walls, said first and second locks being formed respectively with first and second edges defining portions of the first and second locks furthest from the respective first and second side walls, whereby a wire [(W)] can be inserted into the wire-receiving space sufficiently for cutting a resin coating [(Wa)] of the wire [(W)] by projecting ends of the insulation-displacement portions [(15)] and bringing a core [(Wb)] of the wire [(W)] into contact with the projecting ends of the insulation-displacement portions [(15)], and wherein the edges of the locks [(17; 18)] bite into at least the resin coating [(Wa)] for resisting a pull out force on the wire.--

--10. (amended) An insulation-displacement terminal fitting according to claim 9, wherein the locks [(18)] are aligned substantially normal to the respective side wall [(12)].--

--11. (amended) An insulation-displacement terminal fitting according to claim 9, wherein the locks [(18)] are inclined obliquely to project in a direction opposite from an acting direction of an external force along the longitudinal direction of the wire [(W)].--

--12. (amended) An insulation-displacement terminal fitting according to claim 9, wherein the locks [(17; 18)] project by a sufficient distance for contacting the core [(Wb)].--

--13. (amended) An insulation-displacement terminal fitting according to claim 12, wherein the locks [(17; 18)] and the insulation-displacement portions [(15)] project substantially equal distances from the respective side walls [(12)].--

--14. (amended) An insulation-displacement terminal fitting according to claim 9, comprising a front end defining an engaging portion [(13)] for engaging a mating terminal, the insulation displacement-terminal portions [(15)] being rearward of the engaging portion [(13)], the locks [(17; 18)] being rearward of the insulation-displacement portions [(15)].--